Ontario

Modular Training Standards

Perform Loading and Blasting

Underground Soft Rock Miner
Program #770130
Production Specialties Group
Module: U3143

Ministry of Training,
Colleges and Universities

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This document is the property of the trainee/ employee named inside and represents the official record of his/her training.

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TRAINING UNITS

TRAINING UNIT	TITLE	
U3143	Perform Loading and Blasting	6-9

AREA OF COMPETENCY

COMPETENCY ANALYSIS PROFILE
PERFORM LOADING AND BLASTING
ON-THE-JOB TRAINING STANDARDS SKILLS

PERFORM LOADING AND BLASTING **3143.0**	Identify and respond to workplace hazards 3143.01	Inspect work area for ground conditions and related hazards 3143.02	Handle blasting agents, explosives and detonators 3143.03	Perform pre-operational checks on anfo loader 3143.04	Position carrier within the designated work area 3143.05
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PREFACE

This training document was developed by the Program Development and Standards Unit of the Ministry of Training, Colleges and Universities, in consultation with representatives from the Underground Soft Rock Mining industry. These Training Standards are intended to be used by trainee, trainers/instructors and companies as a "blueprint" for training or as a prerequisite for government accreditation/certification. While this training document is intended as guidelines for training, all issues might not apply in all operations.

A Basic Underground Soft Rock Miner (entry level) is a worker who has achieved accreditation in the entire Common Core Program #770130. The Mining Tripartite Committee (MTC) recommends that the employer must provide training in the entire common core for the Basic Underground Soft Rock Miner Training Program, to the worker, within the first year of employment. This 1 year requirement is legislated under the Occupational Health and Safety Act (OHSA) – R.R.O. 1990 Regulations 854, 11.3.

The first three modules of Program #770130 – U5510, U5511 and U3126 are prerequisites to all other modules for the program. They must be completed before any other modules can be done and before the employee can be permitted to work underground.

Prerequisite Common Core modules related to a specialty module must be taken before training in the specialty module commences. *NOTE: For Program #770130 [illegible]ommon core module U5512, Operate Utility Vehicle (Personnel Carriers/Service Vehicles) is a prerequisite to any specialty module that involves operating mobile equipment.* Employers have a responsibility to train workers for the work to be done.

Under the OHSA - R.R.O. 1990 Regulation 854, 11.3 there is an allowance for the recognition of equivalent training from other jurisdictions. In addition, the MTC has conducted a comparison of Ontario's Soft Rock Miner and Hard Rock Miner programs, #770130 and #770110 and found certain corresponding modules to be equivalent. Employers should contact their Local Apprenticeship Office for details about the requirements associated with these equivalencies.

New trainees or experienced miners must obtain accreditation in the same way. Each must demonstrate the skills specified in each Performance Objective to the described minimal acceptable standard as prescribed in each module. These demonstrations must be administered in an operating mine by a trainer designated by the company who shall follow the Performance Demonstration Guidelines approved by the Mining Tripartite Committee.

The care and maintenance of this book is the joint responsibility of the trainee and the employer. The Training Standards were developed specifically for documenting the trainee's acquisition of skills.

PREFACE - Cont'd

Areas of the Basic Underground Soft Rock Common Core including scaling, lock out and tag and handling blasting agents may infringe on some specialty modules for purposes of safety and technological changes. However, accreditation in these areas of the Common Core is not intended to replace accreditation in the specialty modules.

Throughout the document the term "including" is often used. "Including" means: one or more of the items listed, but not limited to those items included in the list.

NOTICE/DECLARATION FOR COLLECTION OF PERSONAL INFORMATION

1. This information is collected under the authority of the Order-In-Council Number 701/85.

2. The information is collected for the purpose of administering this modular training program within the Province of Ontario.

3. Questions regarding collection and use of this information may be directed to:

Director of Apprenticeship
Workplace Training Branch
Ministry of Training, Colleges and Universities
900 Bay Street
17th Floor, Mowat Block
Toronto, Ontario
M7A 1L2
(416) 326-5603

IMPORTANT DIRECTIONS TO TRAINERS

Trainers instructing workers in the specialty modules for Program #770130 must meet the Trainer Qualification and Criteria Guidelines for Program #770130. They must be accredited in the Basic Common Core Underground Soft Rock program #770130 and the specialty module they will be instructing. Contact your local apprenticeship office for a copy of the Trainer Qualification and Criteria Guidelines.

The Training Standards identify skills required for this occupation and its related training program.

These Training Standards have been written in concise statements which describe how well a trainee must perform each skill in order to become competent.

In using these Training Standards, trainers will be able to ensure that the trainee is developing skills detailed for the occupation.

Trainers and trainees are required to sign off and date the skills following each successful acquisition.

Employers participating in this training program will be designated as the Signing Authority and are required to attest to successful achievement in the space provided at the end of each unit.

IMPORTANT DIRECTIONS TO THE TRAINEE

Trainee

1. It is the responsibility of the trainee to inform the local Apprenticeship Client Services office regarding the following changes:

   - change of trainee name or address; and
   - transfer to a new employer.

2. Training Reports must be signed for modular trainees by a Ministry of Training, Colleges and Universities designated Signing Authority and forwarded to a local Apprenticeship Client Services office.

3. At the completion of training, the Trainee Completion Form must be completed and signed off by the Signing Authority and submitted to local Apprenticeship Client Services office.

UNDERGROUND SOFT ROCK MINING SPECIALITY MODULES LISTING BY GROUPS

GROUP 1 PRODUCTION (9)

U3141	Operate Over/Under Cutter
U3142	Operate Mechanized Jumbo Drill
U3143	Perform Loading and Blasting
U3144	Perform Mechanical and Manual Scaling
U5526	Operate Mechanized Rock Bolter
U5527	Operate Pneumatic Rock Bolter Equipment
U5528	Operate Continuous Miner Equipment
U5529	Operate Gathering Arm Loader
U5530	Operate Degassing Drill

GROUP 2 CONVEYANCES AND SERVICES (4)

U3146	Operate Haulage-Track
U3148	Operate Feeder Breaker/Crusher
U3151	Perform Underground Construction
U5535	Operate Conveyor

GROUP 3 SHAFT SERVICES (4)

U074	Operate Mine Hoist – Friction or Drum
U3147	Perform Shaft Maintenance
U5540	Operate Skip
U5541	Operate Cage

TRAINEE COMPLETION FORM

Trainee Name: _____
Print

_____
Signature

Social Insurance Number: _____

Training Units when completed should be signed off by the Trainer/Signing Authority Employer on the following page and presented with this completion form to your local Apprenticeship Client Services office. Any supporting documentation should also be attached.

Employer Name: _____

Address: _____

Telephone: _____

Signing Authority: _____
Signature

TRAINING UNIT COMPLETION FORM

TRAINING UNIT	TITLE	SIGNING AUTHORITY
U3143.01	Perform Loading and Blasting	_____

U3143 PERFORM LOADING AND BLASTING

GENERAL PERFORMANCE OBJECTIVE

Perform loading and blasting, by identifying and responding to workplace hazards; inspecting work area for ground conditions and related hazards; handling blasting agents, explosives and detonators; performing pre-operational checks on anfo loader; positioning carrier; loading face; shutting down carrier; blasting face and conducting post blast checks according to government legislation, company standards and manufacturer specifications.

PERFORMANCE OBJECTIVES

Trainer's Name (Print) _____ Trainee's Name (Print) _____

SKILLS

3143.01 Identify and respond to workplace hazards, including: ground conditions, ventilation, and housekeeping, by isolating area; wearing required retro-reflective outerwear; repairing and/or reporting deficiencies according to government legislation, company standards and manufacturer specifications.

Date Completed _____ Trainer's Signature _____ Trainee's Signature _____

3143.02 Inspect work area for ground conditions and related hazards, by visually checking the work area; following scaling procedures as required; checking ventilation flow; locking out and tagging; and repairing and/or reporting deficiencies according to government legislation, company standards and manufacturer specifications.

Date Completed _____ Trainer's Signature _____ Trainee's Signature _____

U3143.0 **PERFORM LOADING AND BLASTING** - cont'd

3143.03 Handle blasting agents, explosives and detonators, by observing their applications and limitations; following lifting procedures; reporting /logging the quantity of blasting agents used; ensuring immediate area is smoking free; following radio use protocol; using designated/approved containers and tools; ensuring signage and warning lights are in place; ensuring magazine limits are followed; ensuring rotation and removal of damaged or old blasting agents, explosives and detonators; and repairing and/or reporting deficiencies according to government legislation, company standards and manufacturers specifications.

Date Completed	Trainer's Signature	Trainee's Signature
_____	_____	_____

3143.04 Perform pre-operational checks on anfo loader, by inspecting principle components including: chassis, hydraulic, body, engine, power train, batteries, compressors, lighting and warning systems, tire and wheel assemblies, electrical circuits and wiring, loading hoses, grounding chains, steps, guards, handrails, cab, canopy; visually inspecting fire extinguishers/ fire suppression; inspecting platform lifting components, including: booms, jacks, cylinders, scissor lift components; using three point contact while mounting and dismounting; locking out and tagging; and repairing and/or reporting deficiencies according to government legislation, company standards and manufacturer specifications.

Date Completed	Trainer's Signature	Trainee's Signature
_____	_____	_____

3143.05 Position carrier, within the designated work area, by setting park brake; lowering stabilizer jack; positioning wheel chocks as required; locking out and tagging; repairing and/or reporting deficiencies according to government legislation, company standards and manufacturer specifications.

Date Completed	Trainer's Signature	Trainee's Signature
_____	_____	_____

U3143.0 **PERFORM LOADING AND BLASTING** - cont'd

3143.06 Load face, by guarding all affected areas; placing signage; cleaning drill holes; selecting blasting agents, detonators and primers; determining firing sequence; loading holes; wiring face; storing loading equipment; gathering unused explosives and materials and returning to designated storage; locking out and tagging; and repairing and/or reporting deficiencies according to government legislation, company standards and manufacturer specifications.

Date Completed	Trainer's Signature	Trainee's Signature
_____	_____	_____

3143.07 Shut down carrier, by bleeding lines as required; positioning jacks; parking in designated/approved area; disconnecting power cables; applying wheel chocks, as required; performing post operational checks; locking out and tagging; and repairing and/or reporting deficiencies according to government legislation, company standards and manufacturer specifications.

Date Completed	Trainer's Signature	Trainee's Signature
_____	_____	_____

3143.08 Blast face, by instructing and placing guards as required; locating and protecting equipment, conducting pre-firing checks; ensuring circuits are connected as required; initiating warning system; ensuring required ventilation flow; check condition of firing devices; initiating detonation; reporting misfires; and following break through procedures according to government legislation, company standards and manufacturer specifications.

Date Completed	Trainer's Signature	Trainee's Signature
_____	_____	_____

U3143.0 **PERFORM LOADING AND BLASTING** - cont'd

3143.09 Conduct post blast checks, by confirming detonation; reporting misfires; waiting prescribed guarding time; removing guards; ensuring required ventilation flow and gas levels; completing reports as required; and reporting deficiencies according to government legislation, company standards and manufacturer specifications.

Date Completed	Trainer's Signature	Trainee's Signature
_____	_____	_____
	Employer's Name	Employer's Signature
	_____	_____